



SEQUENCE LISTING

RECEIVED

SEP 24 2002

TECH CENTER 1600/2900

<110> Murphy, Dennis
Reid, John

<120> ALPHA-GALACTOSIDASE

<130> 09010-004004

<140> US 09/619,032

<141> 2000-07-19

<150> US 09/407,806

<151> 1999-09-28

<150> US 08/613,220

<151> 1996-03-08

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aag agc gaa atc cca aag gtc ata gag aag gca tac atc cca gtc atc 96
 Lys Ser Glu Ile Pro Lys Val Ile Glu Lys Ala Tyr Ile Pro Val Ile
 20 25 30

gag aca ctg att aaa gaa gaa att cct ttt ggg ctc aac ata acg ggc 144
 Glu Thr Leu Ile Lys Glu Glu Ile Pro Phe Gly Leu Asn Ile Thr Gly
 35 40 45

tat acc tta aag ttc ctc ccg aag gat att ata gac ctc gtt aaa ggg 192
 Tyr Thr Leu Lys Phe Leu Pro Lys Asp Ile Ile Asp Leu Val Lys Gly
 50 55 60

ggc atc gcg agt gac ctg ata gag ata atc gga acg agc tac acg cac 240
 Gly Ile Ala Ser Asp Leu Ile Glu Ile Ile Gly Thr Ser Tyr Thr His
 65 70 75 80

gca ata ctc ccc ctc ctg ccg ctt agc aga gta gaa gca caa gtt cag 288
 Ala Ile Leu Pro Leu Leu Pro Leu Ser Arg Val Glu Ala Gln Val Gln
 85 90 95

aga gat agg gaa gtt aag gaa gag ctc ttc gag gtt tct cca aag gga 336
 Arg Asp Arg Glu Val Lys Glu Glu Leu Phe Glu Val Ser Pro Lys Gly
 100 105 110

ttc tgg ctg cca gag ctc gcc tat gac ccg ata atc cct gcc ata ctg 384
 Phe Trp Leu Pro Glu Leu Ala Tyr Asp Pro Ile Ile Pro Ala Ile Leu
 115 120 125

aag gac aac ggt tat gag tat cta ttc gcc gac ggg gag gcg atg ctt 432
 Lys Asp Asn Gly Tyr Glu Tyr Leu Phe Ala Asp Gly Glu Ala Met Leu
 130 135 140

ttc tca gct cat ctc aac tcg gcg ata aag cca att aaa ccg ctc tat 480
 Phe Ser Ala His Leu Asn Ser Ala Ile Lys Pro Ile Lys Pro Leu Tyr
 145 150 155 160

cca cac ctt ata aag gcc caa agg gaa aag cgc ttt agg tac atc agc 528
 Pro His Leu Ile Lys Ala Gln Arg Glu Lys Arg Phe Arg Tyr Ile Ser
 165 170 175

tat ctc ctt ggt ctc agg gag ctt agg aag gcg ata aag ctc gtt ttt 576
 Tyr Leu Leu Gly Leu Arg Glu Leu Arg Lys Ala Ile Lys Leu Val Phe
 180 185 190

gaa ggt aag gta acg cta aag gca gtc aaa gac atc gaa gcc gta ccc 624
 Glu Gly Lys Val Thr Leu Lys Ala Val Lys Asp Ile Glu Ala Val Pro
 195 200 205

gtt tgg gtg gcc gtg aac acg gct gta atg ctc ggc atc gga agg ctt 672
 Val Trp Val Ala Val Asn Thr Ala Val Met Leu Gly Ile Gly Arg Leu
 210 215 220

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 Pro Leu Met Asn Pro Lys Lys Val Ala Ser Trp Ile Glu Asp Lys Asp

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Asn Ile Leu Leu Tyr Gly Thr Asp Ile Glu Phe Ile Gly Tyr Arg Asp																			
	245										250				255				
att gca ggc tac aga atg agt gtt gag gga tta tta gag gtt ata gac																			816
Ile Ala Gly Tyr Arg Met Ser Val Glu Gly Leu Leu Glu Val Ile Asp																			
	260										265				270				
gag ctc aac tcg gaa ctg tgc ctt ccc tca gag ctg aag cac agt gga																			864
Glu Leu Asn Ser Glu Leu Cys Leu Pro Ser Glu Leu Lys His Ser Gly																			
	275										280				285				
agg gag ctc tac tta cgg act tcg agt tgg gca cca gat aag agc ttg																			912
Arg Glu Leu Tyr Leu Arg Thr Ser Ser Trp Ala Pro Asp Lys Ser Leu																			
	290										295				300				
agg ata tgg aga gag gac gaa ggg aac gca aga ctt aat atg ctg tcc																			960
Arg Ile Trp Arg Glu Asp Glu Gly Asn Ala Arg Leu Asn Met Leu Ser																			
	305										310				315				
tac aat atg agg ggc gaa ctc gcc ttt tta gcc gag aac agc gat gca																			1008
Tyr Asn Met Arg Gly Glu Leu Ala Phe Leu Ala Glu Asn Ser Asp Ala																			
	325										330				335				
agg gga tgg gag ccc ctc cct gag agg agg ctg gat gcc ttc cgg gcg																			1056
Arg Gly Trp Glu Pro Leu Pro Glu Arg Arg Leu Asp Ala Phe Arg Ala																			
	340										345				350				
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Glu	Thr	Leu	Ile	Lys	Glu	Glu	Ile	Pro	Phe	Gly	Leu	Asn	Ile	Thr	Gly				
		35					40					45							
Tyr	Thr	Leu	Lys	Phe	Leu	Pro	Lys	Asp	Ile	Ile	Asp	Leu	Val	Lys	Gly				
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Gly	Ile	Ala	Ser	Asp	Leu	Ile	Glu	Ile	Ile	Gly	Thr	Ser	Tyr	Thr	His				
65					70					75					80				
Ala	Ile	Leu	Pro	Leu	Leu	Pro	Leu	Ser	Arg	Val	Glu	Ala	Gln	Val	Gln				
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Arg	Asp	Arg	Glu	Val	Lys	Glu	Glu	Leu	Phe	Glu	Val	Ser	Pro	Lys	Gly				
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Phe	Trp	Leu	Pro	Glu	Leu	Ala	Tyr	Asp	Pro	Ile	Ile	Pro	Ala	Ile	Leu				
		115					120					125							

Lys Asp Asn Gly Tyr Glu Tyr Leu Phe Ala Asp Gly Glu Ala Met Leu
 130 135 140
 Phe Ser Ala His Leu Asn Ser Ala Ile Lys Pro Ile Lys Pro Leu Tyr
 145 150 155 160
 Pro His Leu Ile Lys Ala Gln Arg Glu Lys Arg Phe Arg Tyr Ile Ser
 165 170 175
 Tyr Leu Leu Gly Leu Arg Glu Leu Arg Lys Ala Ile Lys Leu Val Phe
 180 185 190
 Glu Gly Lys Val Thr Leu Lys Ala Val Lys Asp Ile Glu Ala Val Pro
 195 200 205
 Val Trp Val Ala Val Asn Thr Ala Val Met Leu Gly Ile Gly Arg Leu
 210 215 220
 Pro Leu Met Asn Pro Lys Lys Val Ala Ser Trp Ile Glu Asp Lys Asp
 225 230 235 240
 Asn Ile Leu Leu Tyr Gly Thr Asp Ile Glu Phe Ile Gly Tyr Arg Asp
 245 250 255
 Ile Ala Gly Tyr Arg Met Ser Val Glu Gly Leu Leu Glu Val Ile Asp
 260 265 270
 Glu Leu Asn Ser Glu Leu Cys Leu Pro Ser Glu Leu Lys His Ser Gly
 275 280 285
 Arg Glu Leu Tyr Leu Arg Thr Ser Ser Trp Ala Pro Asp Lys Ser Leu
 290 295 300
 Arg Ile Trp Arg Glu Asp Glu Gly Asn Ala Arg Leu Asn Met Leu Ser
 305 310 315 320
 Tyr Asn Met Arg Gly Glu Leu Ala Phe Leu Ala Glu Asn Ser Asp Ala
 325 330 335
 Arg Gly Trp Glu Pro Leu Pro Glu Arg Arg Leu Asp Ala Phe Arg Ala
 340 345 350
 Ile Tyr Asn Asp Trp Arg Gly Glu Asn Gly Glu Pro
 355 360